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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/665,450	09/22/2003	Hironori Harada	116897	7270
25944	7590	09/24/2004	EXAMINER	
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			FERGUSON, MARISSA L	
			ART UNIT	PAPER NUMBER
			2854	

DATE MAILED: 09/24/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/665,450	Applicant(s) HARADA ET AL.	
	Examiner Marissa L Ferguson	Art Unit 2854	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 5-8 is/are rejected.
- 7) ☒ Claim(s) 2-4, 6 and 9-20 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 22 September 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>3/9/04 and 10/29/0</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hanenkamp (DE 3,003,890) in view of Nagae (US 4,983,058).

Regarding claims 1 and 7, Hanenkamp teaches a ribbon supply spool (3), a ribbon take up spool (5) that takes up an ink ribbon from said ribbon supply spool by rotating in a first rotation direction, said ribbon supply spool being provided with an engaging portion (39), an engaging member (23) that resiliently engages with said engaging portion to prevent said ribbon take up spool from rotating in a second rotation direction opposite to said first rotation direction, said engaging member coming off from said engaging portion when said ribbon take up spool rotates in said first direction (Figure 3 shows the engaging portion disengaging/coming off engaging member 23), a ribbon supply spool that is provided with a pair of brims (9) and wherein an ink ribbon (11) is wound around ribbon supply spool at a space defined between the pair of brims (Figure 2). However, Hanenkamp does not explicitly disclose an engaging member located on a take up spool and an engaging portion located outside of the pair of brims.

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Nagae teaches a ribbon slack mechanism in a cassette that discloses an engaging portion on a take up spool (53).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention as taught by Hanenkamp to include an engaging member on a take up spool as taught by Nagae, since Nagae teaches that it is advantageous to provide an engaging member in order to prevent slack and wrinkling of an ink ribbon.

With respect to the engaging portion located outside of a pair of brims, Hanenkamp at least teaches a stop member (3), however he does not specifically teach the stop member being located outside a pair of brims. However, it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse, 86 USPQ 70*. It would have been obvious to move the stop outside the brims, since such modification would result in an engaging portion being able to easily support an engaging member.

Regarding claim 8, Hanenkamp teaches the invention claimed, however he does not explicitly teach a cassette case that encloses a supply spool, a ribbon take up spool and engaging member. Nagae teaches a tape holding case that encases all the elements (Abstract and 1a) and a wall (26) that holds engaging portion (53). It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the invention as taught by Hanenkamp to include an cassette case as taught by Nagae, since Nagae teaches that it is advantageous to provide a case in order to protect the enclosed elements and prevent the spools and engaging member from rotating together.

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2. Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hanenkamp (DE 3,003,890) in view of Nagae (US Patent 4,983,058) as applied to claim 1 above, and further in view of Turbon (US Patent 4,521,125).

Hankenkamp and Nagae teaches the invention including a ribbon take up spool with a cylindrical wall (Figures 1-3), however the references do not teach an engaging portion that is a slit formed through a cylindrical wall. Turbon teaches a ribbon cassette assembly that teaches a groove that are used for engaging (50, Figure 4). It would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify the invention as taught by Hanenkamp to include a slit engaging portion as taught by Turbon, since Turbon prevents the ribbon from moving during sudden movements.

Allowable Subject Matter

3. Claims 2-4,6 and 9-20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reasons for Allowance

4. The following is an examiner's statement of reasons for allowance:
Regarding claim 1, the prior art does not teach or render obvious an engaging portion that includes first and second walls arranged in a second rotation direction in this order, an engaging member engaging with an engaging portion by dropping into a space defined between first and second walls and wherein a

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first wall is defined along a plane including a rotation axis of a ribbon take up spool.

Regarding claim 6 the prior art does not teach or render obvious wherein said cylindrical wall is provided with a plurality of said slits arranged in a circumferential direction of said cylindrical wall.

Regarding claim 9, the prior art does not teach or render obvious a linear portion formed at one end of a wire rod and a bent portion defined between an arc portion and a linear portion so as to allow a linear portion to extend in a substantially radial direction of a ribbon take up spool.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Marissa L Ferguson whose telephone number is (571) 272-2163. The examiner can normally be reached on (M-T) 6:30am-4:00pm and every other (F) 7:30am-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld can be reached on (571) 272-2168. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Marissa L Ferguson
Examiner
Art Unit 2854

MLF


ANDREW H. HIRSHFELD
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